

CLAIMS

What is claimed is:

1. The use of a turbine wheel using a rotating nozzle or nozzles located on the wheel's periphery in a simple Brayton cycle.
2. The use of a turbine wheel using a rotating nozzle or nozzles located on the wheel's periphery in a recuperated Brayton cycle.
3. The use of a turbine wheel which uses rotating nozzle or nozzles and such turbine wheel having a translational speed equal to or nearly equal to the velocity of the working fluid exiting from the nozzle or nozzles to eliminate or mostly eliminate kinetic energy exhaust losses and associated losses which result from stationary nozzles.
4. The use of multiple turbine wheels incorporating claims 1,2, or 3 when operated at the same pressure.
5. The use of multiple turbine wheels incorporating claims 1,2, or 3 when operated at cascading pressures.
6. The Claims of 1, 2, 3, 4, or 5 when used in conjunction with one or more sonic or supersonic nozzles.
7. The use of a turbine wheel or wheels of claims 1, 2, 3, 4, 5, or 6 to be cooled resulting from cooler working fluid gases expanding from the nozzle and surrounding the outside of the turbine wheel or wheels.
8. The use of a rotating seal or seals to allow the turbine wheel or wheels of claims 1, 2, 3, 4, 5, or 6 to rotate independent of the shaft.
9. The use of a varying diameter wheel to match translational velocity of the wheel to the exit speed of the gasses leaving the nozzle(s).
10. The use of multiple nozzles on the same diameter wheel to allow for different output capacities.
11. The use of different sized nozzles on the same diameter wheel to allow for different output capacities.